

AMENDMENTS

IN THE CLAIMS:

Please add the following new claims.

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D1

1 16. (Newly Added.) A method for data communications, comprising:  
2 providing a network having a plurality of nodes, the plurality of nodes  
3 comprising at least a source node and a destination node;  
4 using a source node to identify a preferred data route for transferring data from  
5 the source node to the destination node;  
6 generating a data packet having at least one destination port value and a  
7 current hop count, the data packet responsive to the preferred data route; and  
8 routing the data packet along the preferred data route in accordance with the at  
9 least one destination port value and the current hop count, wherein routing comprises  
10 modifying the data packet by decrementing the current hop count and replacing the at  
11 least one destination port value at each subsequent node.

1 17. (Newly Added.) The method of claim 16, further comprising:  
2 using the current hop count to detect when the data packet has arrived at the  
3 ~~destination node.~~

1 18. (Newly Added.) The method of claim 16, wherein routing is  
2 accomplished without performing a table lookup at intermediate nodes.

1 19. (Newly Added.) The method of claim 16, further comprising:  
2 inserting at least one source port value and further modifying the data packet.

1 20. (Newly Added.) The method of claim 19, further comprising:  
2 acknowledging receipt of the data packet at the destination node by resetting  
3 the current hop count and swapping the at least one destination and source port values.

1 21. (Newly Added.) The method of claim 20, wherein  
2 acknowledging receipt is accomplished independent of the state of a routing table in  
3 ~~the destination node.~~

1           22.   (Newly Added.)   The method of claim 21, wherein  
2   acknowledging receipt further comprises routing the data packet back to the source  
3   node.

1           23.   (Newly Added.)   The method of claim 21, wherein routing  
2   comprises forwarding the data packet by:  
3       identifying the destination port value in the data packet;  
4       decrementing the current hop count;  
5       transmitting the data packet via a port in response to the destination port value;  
6   and  
7       repeating the identifying, decrementing, and transmitting processes when the  
8   current hop exceeds a threshold value.

1           24.   (Newly Added.)   The method of claim 20, wherein  
2   acknowledging receipt further comprises checking for a timeout.

1           25.   (Newly Added.)   The method of claim 24, further comprising:  
2       using the source node to identify a next best data route for transferring data  
3   from the source node to the destination node in response to the timeout; and  
4       generating the data packet having at least one destination port value and a  
5   current hop count, the data packet responsive to the next best data route.

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